

ABSTRACT

An internal gear oil pump rotor assembly which enables the construction of an oil pump that is compact and has high performance. In the oil pump rotor assembly having an inner rotor and an outer rotor, the number of teeth " Z_i " of the inner rotor with trochoid tooth profiles is set to be equal to or fewer than "6", and a ratio S_i/S_o is set so as to satisfy the following inequalities: $0.8 \leq S_i/S_o \leq 1.3$, where S_i is a cross-sectional area of one external tooth which is formed outside a root circle that is formed along the bottoms of the external teeth of the inner rotor, and S_o is a cross-sectional area of one internal tooth which is formed inside a root circle that is formed along the bottoms of the internal teeth of the outer rotor.